

# **What is the Role of Electric Utilities in EV Infrastructure?**

**NJ BPU EV Stakeholder Meeting**

**October 16, 2017**

**NJ Division of Rate Counsel**

# Electric Distribution Utility (“EDC”)

- As a monopoly, regulated as a public utility by Statute. N.J.S.A. Title 48.
- Under Jurisdiction of NJ BPU.

## **Role of the EDC in EV Infrastructure – 2 factors:**

- **(1)** Obligation to provide “Safe, Adequate and Proper Service.” N.J.S.A. 48:2-23.
- **(2)** Constraints on EDC involvement in competitive energy services per the Electric Discount and Energy Competition Act (“EDECA”, N.J.S.A. 48:3-49 et seq.)

# EDC Obligations

- Obligation to provide “Safe, Adequate and Proper Service.” N.J.S.A. 48:2-23.
- Maintain and develop the electric distribution grid to serve anticipated load.

# Business of EV Recharging

- Competitive business. Open to competition and development by third-party suppliers.
- Possible providers: EV manufacturers and dealers; exclusive EV recharging businesses; retail gasoline outlets; shopping center and office building property owners; public/private partnerships, etc.
- Not currently regulated by the NJ BPU.
- Regulated electric public utility involvement would upset the natural development of the market.

# EV Load on the Electric System - Challenges

- Existing electric transmission/distribution grid and supply resources sized over time to serve fixed-location native electric load.
- EV recharging represents incremental load.
- In contrast to the traditional electric utility customer base, EV recharging is a mobile load.

# Utilization of the Electric System

- Minimal Impact Scenario: Possibility early-on of increased capacity factors for existing utility infrastructure resources if recharging largely takes place during off-peak and shoulder periods. [5/2017 RAP Report, pp. 19-23]
- “Worst case” Impact: 20-25% increase in energy demand if 100% conversion of US vehicle fleet to EV. [5/2017 RAP Report, p. 19]

# Role of the EDCs - Now

- Goal: eliminate barriers to the development of commercial, competitive EV charging market; ensure that the grid can accommodate EV usage; and see that tariff rates reflect the cost to serve EVs.
- Introduce new tariff provisions requiring all EV charging to be separately metered - with a time of use (“TOU”) component - to assess EV load and its impact on grid operation and costs.
- Introduce tariff revisions which remove restrictions on sale-for-resale or sub-metering for EV charging.
- Introduce a new tariff class(es) for EV charging for both residential and commercial EV charging.